<b>Work Order</b> <i>June-12-13 9:13:4</i>		2767		*102	767*						Page. 1	<u></u> ;
	3121-25		F	Accept	*N9000	<u>140</u>	100	)* s	etup Start	*N	S1*	
Revision ID:  Item Name: C	ap								Stop	*N	S2*	
	-r '11/13	<b>Start Qty:</b> 60.00	*60*	-	Cust Item II	):					. ,,	
Required Date: 6/		Req'd Qty: 60.00	*60*		Customer:							
Reference:		-	()()						<b>a.</b>			
Approvals:	Process Pla	n: _ MLJ	Date: 13-06-13	Tooling:	Da	te:		R	un Star	1/1	R1*	
	QC:		Date:	SPC (Y/N):	Da	te:			Stop	*N	R2*	
Sequence ID/ Work Center ID		Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	_
Draw Nbr	Rev	ision Nbr										
D3121	Rev	E			1							_
*100*		Hardinge CNC LATHE	SMALL	0.00				(B	Ø		,	
Hardinge CNC Lathe S	Small	<b>Memo</b> 1-Turn D31	121-25 Cap as per Folio FA38	0.00 <b>5</b>	K 13/06/19	3			/		- <del></del> -	
		QC2-Inspect parts off n	mashina FAL/FAID	0.00	1 : 1 V							
*110 *110*		QC2- inspect parts on in	Hacillic FAI/FAID		K 13/06/19	7		GO	0			
QC		Memo		0.00	4 1 ) / 96/ / (	0		60				
Quality Control												:
120		QC8- Inspect parts - sec	cond check	0.00	_			/			١.,	•
*120* QC Quality Control		Memo		0.00	3-648			60	B		130	

DQA:		Date:	:		,			<b></b>					*	™AÂRT
QA Closed:		Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / U		Wo	ork Order up	odate only	_	AEROSPACE
					DISPOSITION				AGAINST	DEF	PARTMENT	/PROCESS		
Work Orde	er:				<b></b>	,						-		
					Rework	1 1		Skid-tube	Crosstube	_		Water Jet	_	Engineering
Part N	10				Scrap			Machining	Small Fab	_		d. Eng. Coor.	_	Quality
		•			Use-as-is		Therr	noforming	Finishing	$\dashv$	Rec/Stor	re/Packaging		Other
NCR N	No			<del></del>	Suspected Unapproved	]		Large Fab	Composite			Supplier		ا لبا
Root				Desc	ription of work order update	T i	Initial	Act	tion	П	Sign &			· · · · · · · · · · · · · · · · · · ·
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Desci	ription		Date	Verification	$\perp$	QC Inspector
Design														
Doc/Data						1		-					-	
Equip/Tooling													1	
Handling/Pre														
Material														
Operator														
Offset/Setup						1								
Process								1						
Supplier														
Training			ı											1
Transport				:										
Unapproved														
-						FA	ULT CA	regory						
Landi	ng Gear				General	_	1 .		r			-	_	
	Bendin	~		<u> </u>	Bend	<u> </u>	1	rogram		-	Outside Dim	<u> </u>	_	Pressure/Forced
	Centre	Not Conce	ntric		BOM/Route	<u></u>	Grain			-	Over/Under	-	_	Set-up
	Cracks				Broken/Damage/Defect	_	Hardwa			_	Part Incorred	<b> </b>		Temperature/Cure
		Kink/Ripple	e/Wave		Burrs		4	ion Incomplete/U	t t	-	Part Lost/Mi	ssing		Weld
	Cuffs			<u> </u>	Contamination		4	tions Incomplete/	Unclear	_	Part Moved	L	\	Wrong Stock Pulled
	Crushii	-			Countersink		1	ned/off center	,	_	Positioned V		_	
	Heat T			igspace	Cut Too Short		Mislabe		Į		Power Loss/	Surge	[0	Other
		ion Strip in	1 Tube		Drawing		Misrea			_		·		
		Chatter			Drill Holes	<u></u>	Off-set			_				
		g Sequence			Finish		4	Calibration		_				
	Wave/	Twist in Tu	be		Fit/Function		Out of	Sequence						

Work Orde June-12-13 9:1.		2767		*102	767*						Page 2	2
Item ID: Revision ID: Item Name:	D3121-25			Accept	*N900	<b>040</b>	100	)* s	etup	Start Stop	*NS1* *NS2*	-
Start Date: Required Date: Reference:	6/11/13	Start Qty: 60.00 Req'd Qty: 60.00	*60* *60*		Cust Item I Customer:	D:						
Approvals:	Process Pla	an: <u>, </u>	Date:	Tooling: SPC (Y/N):		ate:	- 	F		Start Stop	*NR1* *NR2*	
Sequence ID/ Work Center II	D	Operation Description Identify as per dwg & Ste	ock Location	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reje Qty		Reject Insp. Number Stamp	
*130* Packaging Packaging		Memo		0.00				60x	<u> </u>		13-6	-18
140		QC21- Final Inspection	- Work Order Release	0.00	1					13/	6/19 DA	
*140* QC Quality Control		Memo		0.00	•	· <b>3</b>					(3.06	-10

DQA:			. Date: ˌ			_								<sup>™</sup> ∩ΔRT
QA Closed:			Date:			WORK ORDER NON	-C(	ONFO	RMANCE / UP		ork Order up	odate only		AEROSPACE
QA Closed.			Date.					ſ		**	· · · · · · · · · · · · · · · · · · ·			
Work Orde	er:					DISPOSITION				AGAINST DI	EPARTMENT,	/PROCESS		
	•					Rework			Skid-tube	Crosstube	7	Water Jet		Engineering
Part N	lo.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.		Quality
	-				-	Use-as-is		Therr	noforming	Finishing	Rec/Sto	re/Packaging		Other
NCR N	١٥		<del></del>			Suspected Unapproved			Large Fab	Composite		Supplier		
							1		·		1		•	
Root					Desc	ription of work order update	l .	Initial	Action		Sign &			
Cause		Date	Step	Qty		or non-conformance	Cr	nief Eng	Descri	ption	Date	Verification	า	QC Inspector
Design														
Doc/Data														
Equip/Tooling	$\dashv$				ļ				:			:		
Handling/Pre Material	$\dashv$													
Operator	$\dashv$													
Offset/Setup	$\exists$													
Process	$\Box$													
Supplier	П													
Training	$\Box$													
Transport							ŀ					:		
Unapproved														
							FA	ULT CA	TEGORY					
Landi	ng G	iear				General		_			<u> </u>			
		Bending				Bend	L	Folio/F	Program		Outside Dim	ensions		Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route	L	Grain			Over/Under	tolerance		Set-up
		Cracks				Broken/Damage/Defect	L	Hardwa	ire		Part Incorred	et		Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs	_	Inspect	ion Incomplete/Und	qualified	Part Lost/Mi	ssing		Weld
	-	Cuffs			_	Contamination	L	-	tions Incomplete/U	nclear	Part Moved			Wrong Stock Pulled
		Crushing				Countersink		1	gned/off center		Positioned V	_		i
	$\vdash$	Heat Trea				Cut Too Short	_	Mislabe		L	Power Loss/	Surge		Other
	_	Inspection		Tube	<u> </u>	Drawing	_	Misread						
	$\vdash$	Marks/Ch			L	Drill Holes	<u>_</u>	Off-set						
		Turning S				Finish	<u>_</u>	-∤	Calibration					
		Wave/Tw	ist in Tub	e	- 1	Fit/Function		Out of S	Sequence					

June-12-13 9:13:42 AM

Work Order ID:

102767

Parent Item:

D3121-25

Parent Item Name:

Cap

**Start Date:** 6/11/13

Required Date: 6/11/13

**Start Qty:** 60.00

Required Qty: 60.00

Comments:

IPP Rev:A New Issue 06-05-10 JLM

IPP Rev:B ECN 1060 07-11-12 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MDELRINR1.2500		Purchased	No	,		100	f	5.7000	0.052	3.284208			
DELRIN ROUND BAR 1.	.25"					1			<del></del>		20 .0 F & X		
				<b>Location</b>		Loc Oty	<u>Lo</u>	c Code					
				MAT018		5.7	1						
				125	251	5.7			<u> </u>	3 88 F	火 1910	66.710	

5° > 1° 5

- 7 - 6 / 7 8

DQA: Date:			TAÁRT											
QA Closed:		Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / UF		W	ork Order u	odate only	٦	AEROSPACE
<del></del>					DISPOSITION						PARTMENT	<del></del>		
Work Orde	er:				ļ	.	·	F	AGAIIGI		· A	, 1 110 CE33	_	
Part N	lo				Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing		1	Water Jet d. Eng. Coor. re/Packaging	1	Engineering Quality Other
NCR N	lo				Suspected Unapproved			Large Fab	Composite			Supplier	]	
Root				Desci	ription of work order update	ı	Initial	Acti	ion		Sign &			
Cause	Date	Step	Qty		or non-conformance	Ch	nief Eng	Descri	iption		Date	Verification		QC Inspector
Design														
Doc/Data														
Equip/Tooling													1	
Handling/Pre														
Material		-												
Operator														
Offset/Setup														
Process														
Supplier														
Training														
Transport			ļ											
Unapproved														
						FAI	ULT CAT	regory						
Landi	ng Gear				General		_		•					
	Bending				Bend		Folio/P	rogram			Outside Dim	ensions	P	ressure/Forced
	Centre N	lot Conce	ntric		BOM/Route		Grain				Over/Under	tolerance	_ s	et-up
	Cracks			L	Broken/Damage/Defect		Hardwa	re .			Part Incorred	ct	٦	emperature/Cure
	Crimp/Kink/Ripple/Wave		L	Burrs		Inspecti	ion Incomplete/Un	qualified		Part Lost/Mi	ssing	v	Veld	
:	Cuffs				Contamination -		Instruct	ions Incomplete/U	nclear		Part Moved		_]v	Vrong Stock Pulled
	· Crushing	g			Countersink		Misalig	ned/off center			Positioned V	Vrong		
	Heat Tre	eat			Cut Too Short		Mislabe	eled			Power Loss/	Surge	c	Other
	Inspection	on Strip in	Tube		Drawing		Misread	d	•					
	Marks/0	hatter			Drill Holes		Off-set							
	Turning	Sequence			Finish		Out of 0	Calibration						
	Wave/T	wist in Tub	oe		Fit/Function		Out of S	Sequence						

DART AEROSPACE LTD	Work Order:	107.767
Description: Cap	Part Number:	D3121-25
Inspection Dwg: D3121 Rev: E		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.315	+/-0.010	.315			FK-04	Venn.
Ø1.000	+/-0.010	1.000	7		"	/\
Ø0.838	+/-0.002	.838	7		1)	1,
R0.063	+/-0.010	-063	7		b.	),
R0.010	+/-0.010	.010	7		٨	٩
0.230	+/-0.001	e230	>		4	ls
Ø0.865	+/-0.001	0865	~		13	15
						× 10 2 27 4 27
					,	
	-					
			<u> </u>			

			8 0		
Measured by:	f.t	Audited by:	& G &	Prototype Approval:	N/A
Date:	13/06/18	Date:	13-6-18	Date:	N/A

A 04.04.20 New Issue (P/O D3121-241) KJ/RF  B 06.06.09 Ø1.000 diameter was Ø1.024 KJ/JLM		Rev	Date	Rev	Change		Revised by	Approved	-
	Ī	Α	04.04.20	Α	New Issue	(P/O D3121-241)	KJ/RF		٦
C 00 04 40 D D D D	Ī	В	06.06.09	В	Ø1.000 diameter wa	s Ø1.024			7
C 08.01.16 Dwg Rev. updated KJ/EC/Ducky		С	08.01.16	С	Dwg Rev. updated		KJ/EC/DD-X	77	



	DESIG	4	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
	CHEC	KED	APPROVED	DRAWING NO. REV. E
		91	THE STATE OF THE S	D3121 SHEET 1 OF 10
j	DATE			TITLE SCALE
	07.1	11.07		BRACKET ASSEMBLY 1:2
	Α		02.04.15	NEW ISSUE
	В		03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146
	С		04.02.17	ADD CLEARANCE; USE -241 BEARING
	D		06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000



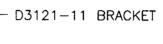
D3121-21 BOLT (1) D3121-241 BEARING ASSEMBLY (1)

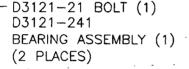
D3121-041 BRACKET ASSEMBLY

07.11.07

(REPLACES PREMIER P/N B30-23000-33)

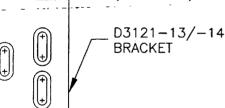
ADD TOLERANCE TO 0.032 (DETAIL B)





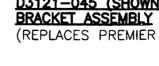
D3121-043 (SHOWN) / D3121-044 (OPPOSITE)
BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-37/-38)



D3121-21 BOLT (1) D3121-241 BEARING ASSEMBLY (1) (2 PLACES)

D3121-045 (SHOWN) / D3121-046 (OPPOSITE)



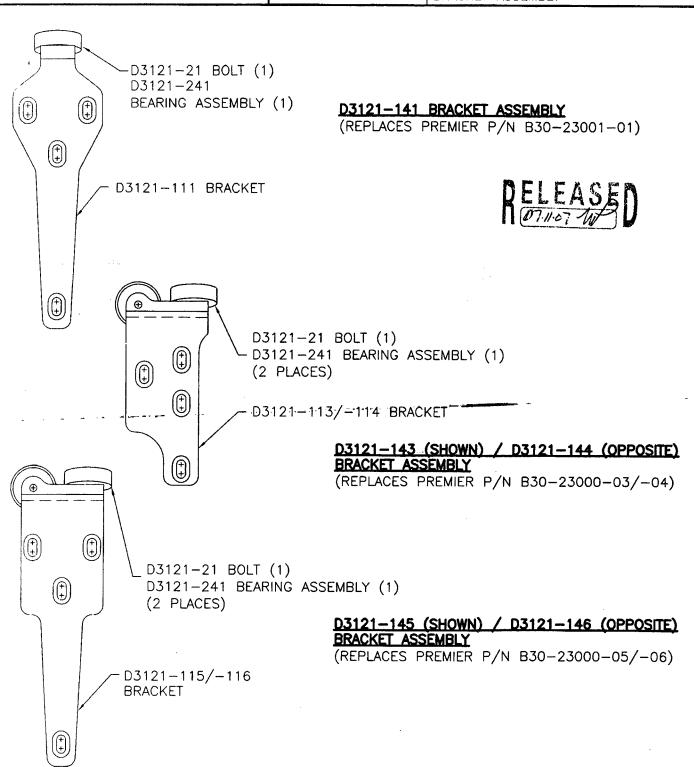
D3121-15/-16 BRACKET

(REPLACES PREMIER P/N B30-23000-35/-36)

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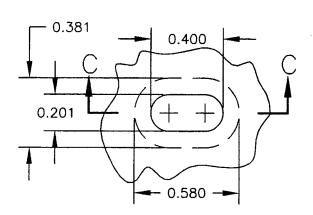
DESIGN	DRAWN BY	DART AEROSF HAWKESBURY, ONTAR	
CHECKED	APPROVED	DRAWING NO.	REV. E
#		D3121	SHEET 2 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2

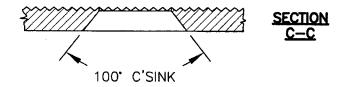




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CHECKED	APPROVED,	DRAWING NO.		rev. e
#	<b>-</b>	D3121	SHE	ET 3 OF 10
DATE		TITLE		SCALE
07.11.07		BRACKET	ASSEMBLY	1:1

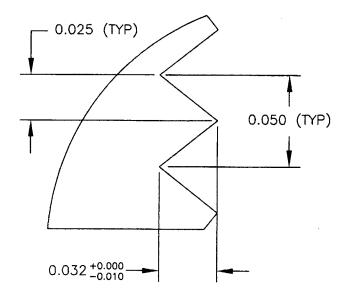
**DETAIL A:** SLOT DETAIL SCALE 2:1 VIEW ROTATED



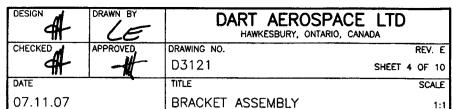


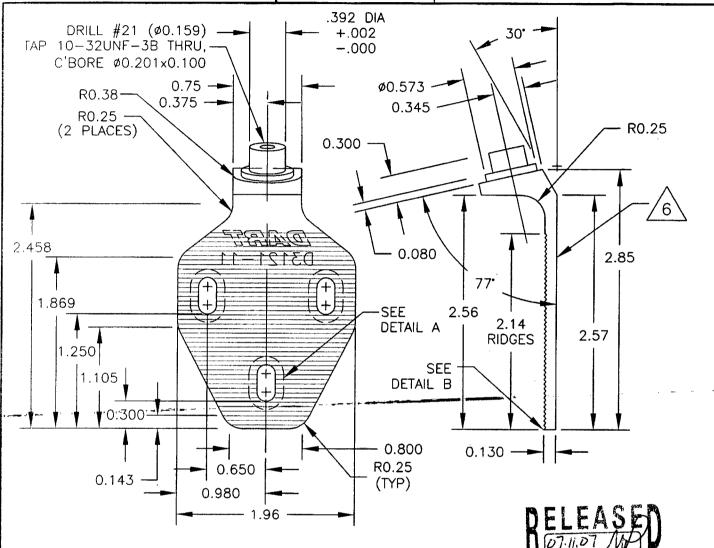


**DETAIL B:** RIDGE DETAIL PARTIAL SECTION SCALE 1:20









#### D3121-11 BRACKET

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. E
#	<b>-#</b>	D3121	SHEET 5 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



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DA\BT

D3121-13

1.220 ---- 1.800 -

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2.63

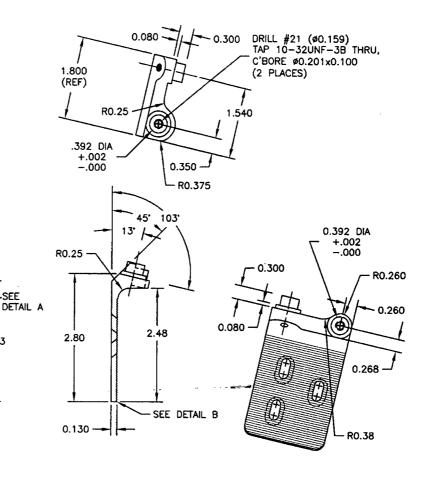
**/**6\.

0.400 -

1.280

0.960

0.330



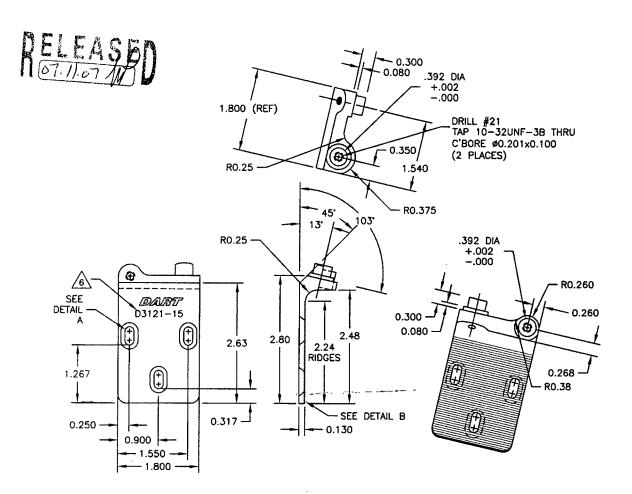
## D3121-13 BRACKET (SHOWN) D3121-14 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
  MIN ULTIMATE TENSILE STRENGTH = 150 ksi
  MIN YIELD TENSILE STRENGTH = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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DESIGN A DRAWN BY DA			DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. E	
91	I AL	D3121	SHEET 6 OF 10	
DATE		TITLE	SCALE	
07.11.07		BRACKET ASSEMBLY	1:2	



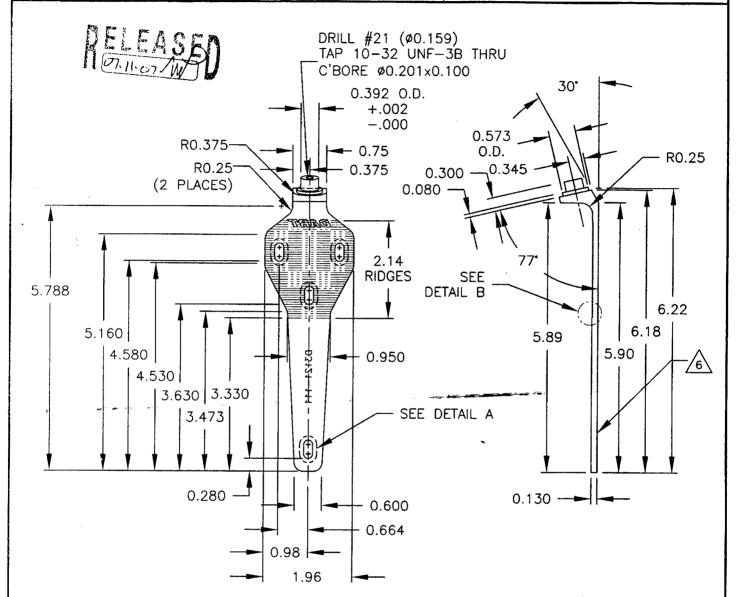
## D3121-15 BRACKET (SHOWN) D3121-16 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
  MIN ULTIMATE TENSILE = 150 ksi
  MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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DESIGN #	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. E
9H		D3121	SHEET 7 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



#### D3121-111 BRACKET

- 1) REPLACES PREMIER P/N B32-23001-11
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
  MIN ULTIMATE TENSILE = 150 ksi

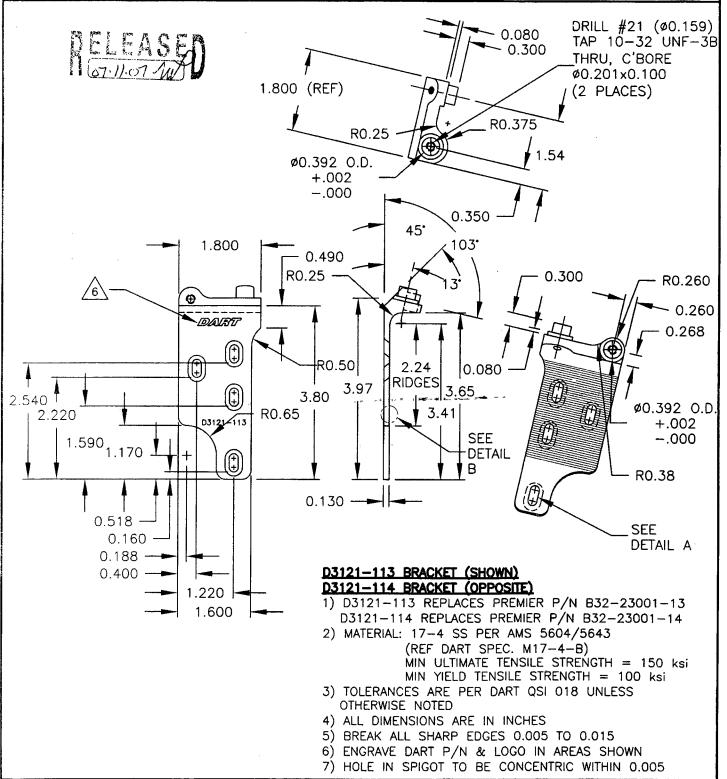
MIN YIELD TENSILE = 100 ksi

- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHEWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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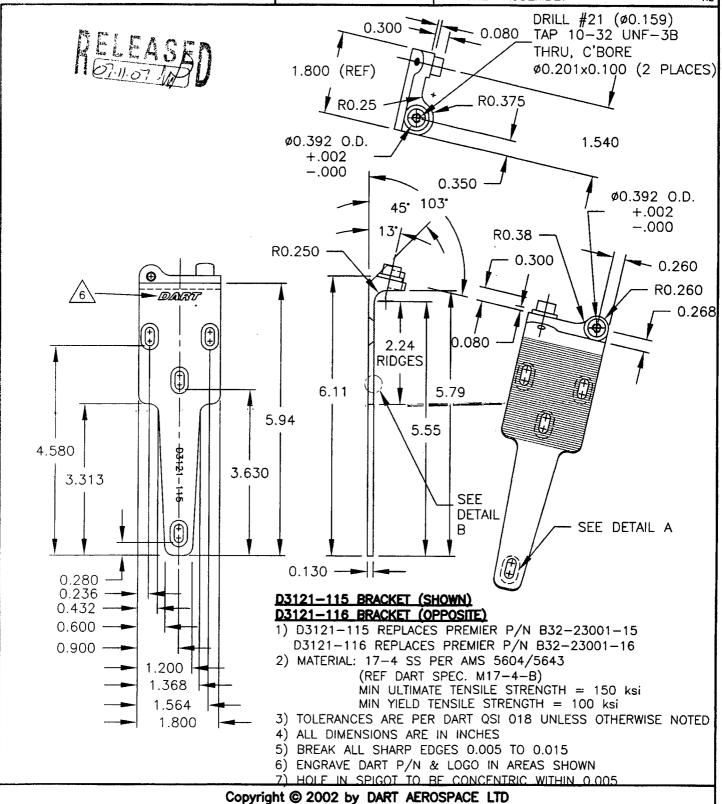
DESIGN A DRAWN BY		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED _	APPROVED	DRAWING NO.	REV. E
#	<b>-#</b>	D3121	SHEET 8 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



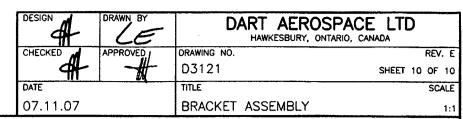
Copyright © 2002 by DART AEROSPACE LTD

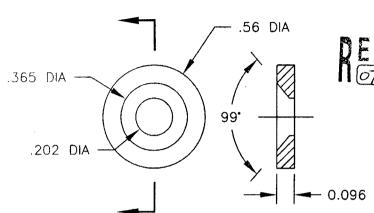


DESIGN A DRAWN BY		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED,	DRAWING NO.	REV. E
44	<b>-#</b>	D3121	SHEET 9 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



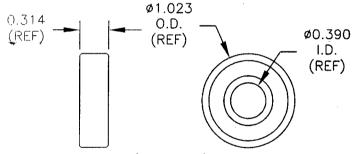






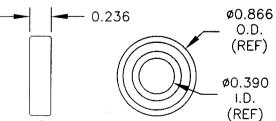
#### D3121-17 WASHER (SCALE 2:1)

- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCÈS ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



#### D3121-19 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES



#### D3121-23 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ
- 2) ALL DIMENSIONS ARE IN INCHES

# 0.080 0.050 TO 0.060

#### D3121-21 BOLT (SCALE 1:1)

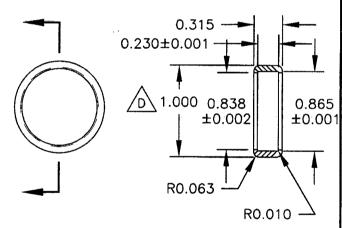
- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE

0.375

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

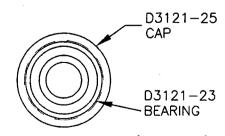
TAP 10-32 UNF-3A

- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



#### D3121-25 CAP (SCALE 1:1)

- 1) MATERIAL: DELRIN ROD, Ø1.25
  - (REF DART SPEC. M-DELRIN-R1.250)
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES



D3121-241 BEARING ASSEBLY (SCALE 1:1)

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